## Improve OT Treatment Outcomes by Treating Core Timing Skills: How

Incorporating Research Based Interactive Metronome® Treatment into OT Practice Improves Timing & Synchronization of Critical Neural Networks for Motor Skill Development, Sensory Integration, Coordination, Cognition, and Developmental Milestone Attainment



## **Course Description:**

Synchronous timing of neural networks is critical for the core skills of motor coordination, attention, working memory, and executive functions that underlie functional coordination to participate and carry out daily activities in people of all ages. Researchers have identified that many of the individuals we see for OT services exhibit impaired neural timing & synchronization, including those diagnosed with Autism, Sensory Processing Disorder, Attention Deficit Hyperactivity Disorder, motor impairments associated with stroke and acquired brain injury, oral motor deficits, and cognitive and motor planning/sequencing impairments seen in Parkinson's disease. This informative presentation will introduce you to a patented, non-invasive biometric technology, called the Interactive Metronome, that is specifically designed to help you objectively evaluate and treat this underlying impairment in timing & rhythm in order to achieve better OT treatment outcomes. \*Contact hours/ AOTA CEUs are offered pending successful completion of a written exam at the end of the course.

## **Target Audience:**

This course welcomes the following professionals who have completed the Interactive Metronome Certification Course.

- Occupational Therapist
- Occupational Therapy Assistant

#### Instructional Level:

Introductory

# **Learning Outcomes:**

Upon completion of this course, participants will be able to:

- 1) Describe the impact of neural network timing & synchronization on motor, sensory, and functional abilities
- 2) List five diagnoses commonly seen in OT clinical practice that scientist have associated with impaired neural network timing & synchronization
- 3) Discuss critical differences between a standard metronome or music and synchronized metronome tapping with real-time millisecond feedback on treatment outcomes with regard to motor, sensory, and functional abilities
- 4) Briefly explain the effect of synchronized metronome tapping on domain-general versus domain-specific learning mechanisms
- 5) Locate additional resources to make evidence-based clinical decisions about incorporating treatment for timing & rhythm into Occupational Therapy practice

\*Note: This course covers information that pertains to licensed therapists and therapy assistants. OTA and PTA professionals must practice IM under the supervision of a licensed OT or PT.

#### Instructor:

**April Christopherson, OTR/L** has been an Occupational Therapist for almost 20 years and has worked with diverse populations in a variety of settings – including home health, private clinic and in-patient rehabilitation. She is co-owner of Performance Advantage, LLC in Colorado Springs, CO where her current clientele range from pediatrics to adults to high performance athletes. She believes in a whole, team approach to the client – including various medical professionals and therapists plus the use of functional neurology and metabolic/nutrition counseling.

April was granted her BS degree in Occupational Therapy from St Ambrose University in Davenport, IA in 1991. She obtained a BA in Psychology at the same time. She has furthered her education by taking courses and reading materials that foster her knowledge in helping clients recover neurological functioning from the lowest level to the higher cognitive and executive levels (such as Boehme Approach to Treatment of the Baby, Sensory Integration Clinics (various), The Listening Program, Alert Program, Treating Drug Affected Children, OT in the Schools, Benbow's Loops and Other Groups, Marriage and Family Counseling, Nutrition, Studies in Neurology, and various other certification classes.) She uses IM as an intensive neurological treatment option for qualified clients and as an introductory functional treatment option for pediatrics.

## **Disclosures:**

Instructor Financial Disclosure(s): April is the author of this and several other webinars on the clinical application of Interactive Metronome technology. She received an honorarium from Interactive Metronome, Inc for the development and presentation of this and other webinars she has presented. April is also an instructor for Interactive Metronome, for which she receives a fee for teaching each course and reimbursement of travel expenses from Interactive Metronome, Inc.

Instructor Nonfinancial Disclosure(s): April is the owner of MaxAchieve, Inc and uses Interactive Metronome regularly in clinical practice.

Course Content Disclosure: The Interactive Metronome, Inc. has developed and patented a licensed technology trademarked as the Interactive Metronome®. (U.S. Patents #4,919,030; #5,529,498; #5,743,744; #6,719,690; other U.S. and foreign patents pending) Interactive Metronome, Inc. is the sole source of the following products: Interactive Metronome®, Gait Mate® and IM Home®. Because there are no other like-kind products available, course offerings will only cover information that pertains to the effective and safe use of the above-named products.

## Course Origination Date\*: 6/11/2014

\*Course content is reviewed annually to make sure it remains current and relevant to the practice of Interactive Metronome.

### Agenda (60 minutes):

- Speaker introduction & disclosure
- Introduction and Overview
- Neural Network Timing & Synchronization: Relevance to OT Practice
- Interactive Metronome: Overview & Demonstration of Biometric Technology to Measure & Improve Neural Timing & Synchronization
- Evidence-Based Practice:
  - Autism Spectrum Disorders (ASD)
  - Sensory Processing Disorder (SPD)
  - o Developmental Disorders, ADHD & Academic Achievement
  - o Traumatic Brain Injury (TBI)
  - o Oral Motor Delays
- How & Why Does Synchronized Metronome Tapping Work? Effect on Domain-General versus Domain Specific Learning
- Mechanisms
- Candidacy for Timing & Rhythm Intervention, Dosage & Insurance Reimbursement
- Online post-test & course evaluation

#### **Instructional Methods:**

LECTURE, PPT

### **Contact Hours/AOTA CEUs:**

0.1 AOTA / 1.25 NBCOT PDUs (1.0 contact hour)

PT/PTA & Other Disciplines Not Listed Above: If your discipline or state is not listed above, you may submit paperwork to your state board or association for CEUs if they allow you to do so. Please check with your state board/association prior to registering for this course.

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